

UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY

MARS, INCORPORATED and
MARS ELECTRONICS
INTERNATIONAL, INC.,

Plaintiffs and
Counterclaim Defendants,

V.

COIN ACCEPTORS, INC.,

Defendant and
Counterclaim Plaintiff.

CIVIL ACTION NO. 90-49 (JCL)

FINDINGS OF FACT AND CONCLUSIONS OF LAW RE: COINCO '839 PATENT

LIFLAND, District Judge

This matter comes before the Court upon the counterclaim of Defendant Coin Acceptors, Inc. (“Coinco” or “Defendant”) against Plaintiffs Mars, Incorporated and Mars Electronics International, Inc. (collectively, “Mars” or “Plaintiff”) regarding Mars’ alleged contributory and induced infringement of Claims 13 and 16 of Coinco’s U.S. Patent No. 4,034,839 (“the '839 patent”).¹ For the reasons set forth below, the Court finds that Coinco has failed to establish

¹ Coinco originally asserted infringement of Claims 15, 17, and 19 as well, but these allegations were withdrawn at trial.

either contributory or induced infringement of the asserted claims.

I. BACKGROUND

The '839 patent, entitled “Simplified Multi-Price Vend Control Circuit,” describes a vending machine control circuit. The patent was originally issued to H.R. Electronics Company, a subsidiary of Coinco, as assignee of the inventor Joseph L. Levasseur. Subsequently, the '903 patent was assigned to Coinco. (Joint Ex. 7, Stipulated Fact No. 134.) Coinco alleges that Mars has contributed to and induced infringement of Claims 13 and 16 of the '839 patent by selling certain 5900-series changers—namely four price, four vend relay changers; four price, one vend relay changers; and ten price changers—for use in “Type I” and “Type II” vending machines.

Detailed descriptions of Mars’ 5900 series changers, as well as “Type I” and “Type II” vending machines, are included in this Court’s earlier opinion concerning Coinco’s U.S. Patent No. 3,828,903. Mars, Inc. v. Coin Acceptors, Inc., Civ. Act. No. 90-49 (JCL), 2007 U.S. Dist. LEXIS 20094 (D.N.J. Mar. 21, 2007). Accordingly, the Court will not revisit those details here. For present purposes it is sufficient to note that many vending machines are designed to operate with a separate coin changer, such as Mars’ 5900-series coin changers.

These coin changers are capable of providing change to a customer during a vend operation, and typically consists of two main components: (1) a coin acceptor and (2) a changer control portion that includes, among other things, change making features, coin storage tubes, and accounting and control circuits. Mars' accused 5900-series coin changers have been advertised and promoted for use in "Type I" and "Type II" vending machines. Coinco alleges that the accused changers, when used in "Type I" or "Type II" vending machines, infringe Claim 13 and Claim 16 of its '839 patent.

Coinco does not assert direct infringement against Mars because each of the asserted claims includes elements of vending machines that are not present in Mars' changers, but are allegedly present only when the changers are used in "Type I" or "Type II" vending machines. Mars denies that its accused changers infringe the '839 patent, even when used in conjunction with such vending machines. For the reasons explained below, the Court agrees with Mars that its accused changers do not infringe Coinco's '839 patent.

II. INFRINGEMENT OF THE '839 PATENT

As explained above, Coinco accuses Mars of contributory infringement and inducement of infringement of Claims 13 and 16 of the '839 patent. Direct

infringement by the completed product is a required element of both inducement of infringement under § 271(b) and contributory infringement under § 271(c).

Kim v. ConAgra Foods, Inc., 465 F.3d 1312, 1319 (Fed. Cir. 2006); Glenayre Elecs., Inc. v. Jackson, 443 F.3d 851, 858 (Fed. Cir. 2006); Novartis Pharm. Corp. v. Eon Labs Mfg., 363 F.3d 1306, 1308 (Fed. Cir. 2004) (“When indirect infringement is at issue, it is well settled that there can be no inducement or contributory infringement absent an underlying direct infringement.”); Dynacore Holdings Corp. v. U.S. Philips Corp., 363 F.3d 1263, 1272 (Fed. Cir. 2004) (“Indirect infringement, whether inducement to infringe or contributory infringement, can only arise in the presence of direct infringement, though the direct infringer is typically someone other than the defendant accused of indirect infringement.”). As explained in more detail below, the Court finds that Coinco has failed to establish direct infringement, and accordingly has failed to establish either contributory infringement or inducement of infringement against Mars.

Claim 13 of the '839 patent covers:

A vend control circuit comprising

- [a] a coin unit for accepting coins of at least two different denominations,
- [b] accumulator means operatively connected to the coin unit including means for entering into the accumulator means amounts representing the value of each different

denomination coin deposited during a vend operation,

- [c] a price accumulator means having
 - [c.1] a plurality of input connections for the entry therein of a selected vend price, said last named means including
 - [c.2] a plurality of serially connected vend selection switches any one of which can be actuated by a customer depending on the vend he chooses,
 - [c.3] a vend price establishing device associated respectively with each of the vend selection switches, each of said vend price establishing devices having a corresponding number of input and output connections,
 - [c.4] means operatively connecting the output connections respectively to the input connections of the price accumulator,
 - [c.5] means establishing continuity between selected ones of the input and output connections of the price establishing means depending on the price to be established thereby for entry into the price accumulator,
 - [c.6] a source of pulses connected in circuit with the series connected selection switches, operation of a selected one of said selection switches establishing a circuit connection between the pulse source and selected inputs to the price accumulator through the associated vend price establishing device, and
- [d] means for producing a vend signal to initiate a vend operation whenever the amount entered in the accumulator means at least equals the amount entered in the price accumulator.

(Def. Exh. 880.)

As is evident from the claim language, Claim 13 encompasses numerous

limitations. Coinco created the paragraphing utilized above in order to identify the various limitations and facilitate analysis of the claim. Mars objects to the paragraphing as “incorrect and misleading” (Mars’ Post-Trial Mem. at 8 n.5), but nevertheless used the designations in constructing its argument. Thus, although the Court has some reservations about Coinco’s breakdown of the claim limitations, the Court will utilize them as well.

In order to prove direct infringement of Claim 13, Coinco must establish that Mars’ accused coin changers (when used in “Type I” and “Type II” vending machines) satisfy each of the numerous limitations of the claim. Mars concedes that its accused changers connected to a “Type I” or “Type II” vending machine comprise a vend control circuit, and include “a coin unit for accepting coins of at least two different denominations,” but disputes the presence of the remaining claim elements. Mars focuses primarily on four specific elements: [b], [c.3], [c.6], and [d]. For the reasons explained herein, the Court finds that element [c.3] is not present in Mars’ changers. Accordingly, Coinco cannot prove direct infringement of the '839 patent and cannot succeed on its contributory infringement or inducement of infringement claim.

A. ___ Claim Construction of Element [c.3]

Patent infringement analysis is a two-step process. Cybor Corp. v. FAS

Techs., 138 F.3d 1448, 1454 (Fed. Cir. 1998). First, the Court must construe the claim—or in this case the particular limitation—at issue. The proper construction of the claim is a matter of law to be decided by the Court without reference to the allegedly infringing device. Markman v. Westview Instruments, 52 F.3d 967 (Fed. Cir. 1995) (en banc), aff'd 517 U.S. 370 (1996); Pall Corp. v. Hemasure Inc., 181 F.3d 1305, 1308 (Fed. Cir. 1999). “Ascertaining the meaning of the claims requires that they be viewed in the context of those sources available to the public that show what a person of skill in the art would have understood the disputed claim language to mean.” MBO Labs., Inc. v. Becton, Dickson & Co., 474 F.3d 1323, 1329 (Fed. Cir. 2007) (internal quotation marks omitted).

When conducting this claim construction analysis, the Court may consider various sources. The starting point for the analysis is the claim language itself. Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1305 (Fed. Cir. 1999); Vitronics Corp. v. Conceptoronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996). Other than the actual claim language,

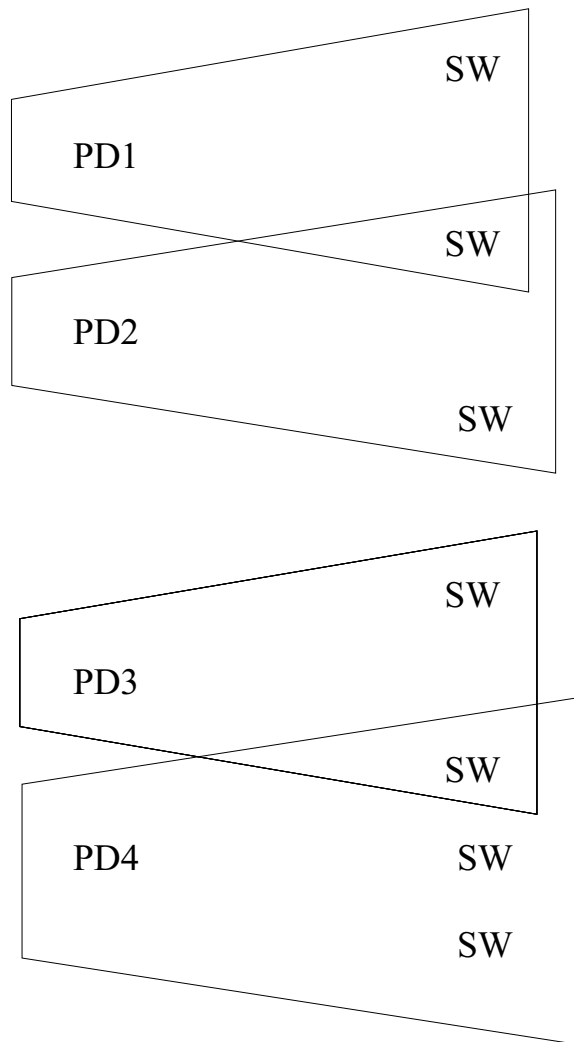
[t]he most relevant source is the patent’s specification, which is the single best guide to the meaning of the disputed term. Next in importance is the prosecution history, which is also part of the “intrinsic evidence” that directly reflects how the patentee has characterized the invention. Extrinsic evidence—testimony, dictionaries, learned treatises, or other material not part of the public record associated with the patent—may be helpful but is

less significant than the intrinsic record in determining the legally operative meaning of claim language.

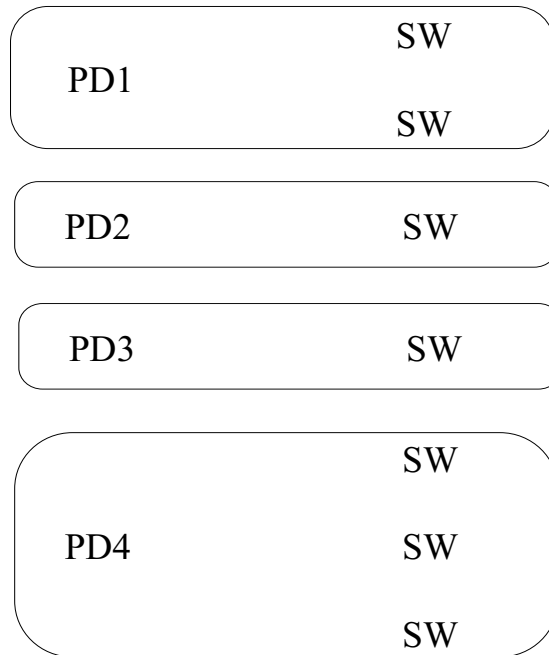
MBO Labs., 474 F.3d at 1329 (internal quotation marks and citation omitted).

Here, the disputed question is whether the proper construction of element [c.3] requires a one-to-one relationship between vend selection switches and vend price establishing devices. Mars argues that it does. Coinco disagrees and argues that there is no requirement of a one-to-one association.

To resolve this question, the Court turns first to the claim language. Element [c.3] requires “a vend price establishing device associated respectively with each of the vend selection switches.” The article “‘a’ normally refers to the singular.” North Am. Vaccine, Inc. v. American Cyanamid Co., 7 F.3d 1571, 1575-76 (Fed. Cir. 1993). Accordingly, the claim language can be restated as “one vend price establishing device associated respectively with each of the vend selection switches.” Mars argues that the word “respectively” in this sentence mandates the one-to-one relationship between vend price establishing devices and vend selection switches. Coinco disagrees. Coinco maintains that the following illustration depicts a situation wherein a vend price establishing device (“PD”) is associated—but not “associated respectively”—with each vend selection switch (“SW”):



Coinco asserts that the PDs and SWs are not “associated respectively” in the above example because there is overlap—*i.e.*, some selection switches are associated with more than one vend price establishing device. Coinco contrasts this situation with the one depicted below:



Coinco maintains that in this latter illustration, a vend price establishing device is “associated respectively” with each of the vend selection switches, despite the lack of a one-to-one relationship, because each selection switch is associated with only one price establishing device.

Accordingly, the proper construction of claim limitation [c.3] depends on whether the word “respectively” in the limitation requires a one-to-one relationship between PDs and SWs (as Mars contends), or whether it permits multiple SWs to be associated with a single PD as long as no SW is associated with more than one PD (as Coinco contends).

As a general rule, all terms in a patent claim are given their “plain, ordinary and accustomed meaning,” *Rexnord Corp. v. Laitram Corp.*, 274 F.3d 1336, 1342

(Fed. Cir. 2001), “unless the text of the patent makes clear that the word was used with a special meaning,” *Toro Co. v. White Consol. Indus., Inc.*, 199 F.3d 1295, 1299 (Fed. Cir. 1999). An example, as provided below, illuminates the ordinary use and meaning of the word “respectively,” and indicates that Mars’ interpretation of the language as requiring a one-to-one relationship is more sensible.

Compare, for example, the following two sentences: (1) The cat and the dog belong to John and Jane, respectively. (2) The cat, the dog, and the fish belong to John and Jane, respectively. Sentence (1) represents a typical use of the word “respectively.” The meaning of the sentence is clear and understandable—the cat belongs to John and the dog belongs to Jane. Sentence (2) by contrast is incoherent. Unlike in sentence (1), it is impossible to be certain which animal belongs to which person. The only difference between the two sentences is that there is a one-to-one relationship between animals and people in sentence (1), but not in sentence (2). The addition of a third animal in sentence (2) eliminates the one-to-one relationship, and renders the sentence effectively meaningless.

This indicates that the word “respectively” generally requires a one-to-one relationship between the words it modifies in order to remain meaningful.

Translating this idea back to the context at hand, the word “respectively” in the claim limitation would require a one-to-one relationship between selection switches and vend price establishing devices. Accordingly, the Court finds that the plain language of the claim limitation supports Mars’ construction of the claim as requiring such a one-to-one association.

Further support for this conclusion is found in the patent’s specification, which, after the claim language itself, has been characterized by the Federal Circuit as the “most relevant source . . . [and the] single best guide to the meaning of the disputed claims.” MBO Labs., 474 F.3d at 1329. Figure 1 is a “block diagram of the vending control circuit of the instant invention.” ’839 patent, col. 2, lines 22-23. The figure reflects a one-to-one relationship between vend price establishing devices and vend selection switches. Specifically, selection switch 74 is associated with price establishing device 96 via motor hold switch 158 and motor 78, and selection switch 90 is associated with price establishing device 136 via an unnumbered motor hold switch and motor 94. Id. at Fig. 1; see also id. at col. 4, lines 43-50; col. 5, lines 36-39. Nowhere in the figure are two or more selection switches associated with a single price establishing device. See id. at Fig. 1; see also Trial Trans. 39/27/19-29/9 (Kesner). This clearly bolsters the conclusion that the proper construction of limitation [c.3] requires a one-to-one

relationship between vend price establishing devices and selection switches.

Moreover, the Court's task when construing a claim is to ascertain what a person of ordinary skill would have understood the claim language to mean. MBO Labs., 474 F.3d at 1329. Mars' expert witness, Mr. Kesner, testified that an engineer of ordinary skill would expect from the figure that if another selection switch were added, then another motor hold switch, motor, and vend price establishing device would be added as well, thus maintaining the one-to-one relationship reflected in figure 1.² Trial Trans. 39/29/9-19 (Kesner). Coinco offered no contrary evidence indicating that a person of ordinary skill would have understood the claim language any differently. Two of Coinco's witnesses did testify that additional selection switches could be added without having to add additional price establishing devices by creating a diode "or" connection to an existing price establishing device. See Trial Trans. 35/143/11-144/21 (Morley); 37/101/4-10 (Levasseur); see also Mars, Inc. v. Coin Acceptors, Inc., Civ. Act. No. 90-49 (JCL), 2007 U.S. Dist. LEXIS 20094 (D.N.J. Mar. 21, 2007) (explaining "or" connections). However, the mere fact that one could modify the invention by

² Although trial testimony is "extrinsic evidence," which is considered "less significant than the intrinsic record in determining the legally operative meaning of claim language," MBO Labs., 474 F.3d at 1329, the Court finds this testimony to be helpful—indeed critical—to illuminating and interpreting the meaning of the patent specification and how it would be understood by a person of ordinary skill.

attaching additional switches to existing price establishing devices does not indicate that such a configuration was covered by the '839 patent. Indeed, the Court sustained an objection by Mars to further questions on this topic for precisely this reason. See Trial Trans. 35/145/1-151/16. Nor does anything in the patent suggest that such a configuration was contemplated by the inventors. See Trial Trans. 39/29/30-31/11 (Kesner). Mr. Kesner testified that if such a configuration had been contemplated, one would expect to see certain features, such as diodes, in the figure 1 diagram of the vending control circuit. Id.

Accordingly, the undisputed evidence indicates that the person of ordinary skill would understand figure 1 as requiring a one-to-one relationship between selection switches and vend price establishing devices. This, in conjunction with the Court's independent interpretation of figure 1 as well as the claim language, supports Mars' interpretation of claim limitation [c.3].

Mars also argues that aspects of the written description as well as "market factors" indicate that the '839 is limited to circuits having a one-to-one ratio of selection switches and vend price establishing devices. See Mars Post-Trial Br. at 14-18. The Court is not persuaded by these arguments. Nor, however, does the Court find that these factors weigh in favor of Coinco's broader interpretation of the patent claim. Notably, Coinco does not argue that these factors support its

interpretation. Nor does Coinco point to any other evidence—intrinsic or extrinsic—that supports its position. Accordingly, the only relevant and informative sources of guidance (the claim language and the figure included in the patent specification) weigh in favor of Mars’ claim construction position, which the Court accepts.

Alternatively, Coinco’s arguments at most present a case of ambiguity in claim construction, and the Federal Circuit has stated that “where the claim is so ambiguous as to support two differing interpretations, and resort to other intrinsic and extrinsic evidence does not resolve the confusion, a court should adopt the narrower of the suggested interpretations.” Quickie Mfg. Corp. v. Libman Co., 180 F. Supp. 2d 636, 645 (D.N.J. 2002); see also Ethicon Endo-Surgery, Inc. v. United States Surgical Corp., 93 F.3d 1572, 1581 (Fed. Cir 1996); Athletic Alternatives, Inc. v. Prince Manufacturing (“AAI”), 73 F.3d 1573, 1581 (Fed. Cir. 1996).

In the AAI case, AAI had patented a stringing arrangement for tennis rackets in which the strings were offset at distances which “varied between” a minimum and a maximum distance from the racket’s central plane. AAI, 73 F.3d at 1577. Both parties agreed (1) that the phrase “varied between” unambiguously covered a stringing arrangement in which three or more offset distances were used

and (2) that a stringing arrangement which employed only a single offset distance was anticipated by the prior art. Id. at 1577, 1575. The disputed question in the case was whether AAI's claim was sufficiently broad to cover a stringing arrangement which employed exactly two offset distances. The Federal Circuit examined the claim language as well as other intrinsic and extrinsic evidence, but ultimately concluded that the reach of the claim was ambiguous and that it was impossible to tell with reasonable certainty whether it covered a racket with only two offset distances. AAI, 73 F.3d at 1578-81. The Court then found, based on its understanding of the second paragraph of 35 U.S.C. § 112, that to the extent that a claim is ambiguous, a narrow reading which excludes the ambiguously covered subject matter must be adopted. AAI, 73 F.3d at 1581; see also Ethicon Endo-Surgery, 93 F.3d at 1581.

Applying this principle to the instant case, the Court finds that the narrow interpretation of the limitation proffered by Mars must be adopted. This conclusion is bolstered by the facts noted above, namely that both the claim language and figure 1 of the patent favor Mars' position and that Coinco does not point to any evidence demonstrating that its proffered interpretation should be accepted over any other. In sum, the Court finds that the proper construction of claim limitation [c.3] requires a one-to-one relationship between selection

switches and vend price establishing devices.

B. Infringement of Element [c.3]

Having determined the scope of the claim, the Court proceeds to the second step of the patent infringement analysis—comparing the properly construed claim to the allegedly infringing device. Cybor Corp., 138 F.3d at 1454. Here, it is undisputed that the accused Mars changers do not have the one-to-one relationship between selection switches and vend price establishing devices that is required by the properly construed claim limitation as discussed above. Accordingly, the Court finds that Mars’ 5900-series coin changers in combination with “Type I” and “Type II” vending machines do not infringe Claim 13 of the '839 patent. The Court also agrees with Mars that Coinco made little effort to show infringement by the doctrine of equivalents.

III. CONCLUSION

Since limitation [c.3] of Claim 13 is not present in Mars’ accused coin changers, there can be no infringement of Claim 13. Accordingly the Court need not construe the remaining limitations in Claim 13 or compare Mars’ accused changers to these limitations. Claim 16 is dependent upon Claim 16, and therefore is also not infringed. See Jeneric/Pentron, Inc. v. Dillon Co., 205 F.3d 1377, 1383

(Fed. Cir. 2000).

Because the '839 patent expired many years ago and because the Court has found no infringement, the Court does not address the invalidity arguments advanced by Mars as a defense to infringement.

/s/ John C. Lifland, U.S.D.J.

Dated: May 9, 2007